

Amendments to the Specification:

At the indicated page and line numbers, please replace the existing paragraphs with those set forth below.

(Page 3, line 25 through page 4, line 25) As noted below in the experimental section, aspects of the present invention are exemplified by peptide fragments of Fas known as Fp5, with sequence GQFCHKPCPPGERKARDCTV (SEQ ID NO: 1) corresponding to Gly₄₀-Val₅₉ of Fas, Fp8 with sequence QEGKEYTDKAHFSSKCRRCR (SEQ ID NO: 2), Fp9 with sequence HFSSKCRRRCRLCDEGHGLEV (SEQ ID NO: 3), Fp11, with sequence EINCTRTQNTKCRCKPNFFC (SEQ ID NO: 4), corresponding to Glu₁₀₀-Cys₁₁₉ of Fas, Fp12 with sequence KCRCKPNFFCNSTVCEHCDP (SEQ ID NO: 5), and Fp17 with sequence WLCLLLLPIPLIVWVKRKEV (SEQ ID NO: 6) corresponding to Trp₁₆₀-Val₁₇₉ of Fas, and Fp18 with sequence LIVWVKRKEVQKTCRKHKE (SEQ ID NO: 7). Fp5 is demonstrated herein to be able to induce apoptosis. Fp8 and Fp9 comprise amino acids which are important for binding of Fas to its natural ligand, FasL. Fp11 and Fp17 are demonstrated herein to be able to block apoptosis. Auto-antibodies against Fp11 and Fp17 induce apoptosis, so administration of these and related peptides may be used to block apoptosis of Fas carrying cells. Auto-antibodies against Fp5 may have the property of a homeostatic regulator of apoptosis by interfering with the binding of natural Fas ligand to Fas, so administration of Fp5 peptide and related peptides may be used in increase Fas ligand

binding to Fas positive cells, inducing apoptosis. Auto-antibodies against Fp8 may function as a homeostatic regulator of Fas-mediated apoptosis by occupying the Fas region which is engaged in binding to ligand. Such antibodies may be used as inducers or blockers of Fas-mediated apoptosis, depending on the state of activation of the relevant cell.

(Page 5, lines 13-21) Experiments show that peptide 16, which has an overlap of 10 amino acids with Fp17, has low or no reactivity with human sera. (Peptide 16 has the sequence KEEGSRSNLGWLCLLLLPIP (SEQ ID NO: 8)). This provides indication of particular importance for the C-terminal part of Fp17. This is supported by the findings with Fp18 (see Table 1). A further embodiment of the present invention therefore provides a peptide including or consisting of the amino acid sequence QKTCRKHRKE (SEQ ID NO: 9; examples of a peptide including such sequence being Fp17 and Fp18).

(Page 43, lines 4-12) Peptides corresponding to the extracellular and transmembrane parts of human Fas (Itoh, et al., 1991) were synthesized. Three of these peptides, Fp5 (Gly₄₀-Val₅₉ with sequence GQFCHKPCPPGERKARDCTV, SEQ ID NO: 1), Fp11 (Glu₁₀₀-Cys₁₁₉ with sequence EINCTRTQNTKCRCKPNFFC, SEQ ID NO: 4) and Fp17 (Trp₁₆₀-Val₁₇₉ with sequence WLCLLLLPIPLIVWVKRKEV, SEQUENCE ID NO: 6), were reactive with antibodies present in the blood of the 30 healthy donors

(Figure 1). The serum titers against the three different peptides were variable with the lowest mean titers detected against Fp17.